

Preliminary Data Gap Analysis  
Pebble Project Environmental Impact Statement

Resource: Air Quality			
Project Component	Analysis Component	Description	Data Recommendations
Mine Site	Regulatory Framework, Air Quality	An air quality permit application or regulatory applicability review for the mine site operations including power generation equipment.	Provide documentation of what AQ permits and air quality regulation the project is anticipated to trigger including NSPS and NESHAPs.  Alternately this data could be developed if additional information on planned operations is provided.
Gas Pipeline	Regulatory Framework, Air Quality	An air quality permit application or regulatory applicability review for the pipeline operations focusing on compressor stations and gas conditioning/export infrastructure on the Kenai Peninsula.	Provide documentation of what AQ permits and air quality regulation the project is anticipated to trigger including NSPS and NESHAPs.  Alternately this data could be developed if additional information on planned operations is provided.
Mine Site	Effects, Air Quality	Emissions inventory for mine site <u>operations</u> including stationary and mobile equipment.	Provide a well-documented emissions inventory that includes tons per year emissions estimates for criteria pollutants, hazardous air pollutants, and greenhouse gases for both permitted and non-permitted emission units during mine site operations. The emission inventory must be comprehensive for all mine site operations such as but not limited to: <ul style="list-style-type: none"> <li>• Power generation</li> <li>• Ore processing activities</li> <li>• Mining activities (blasting, crushing, grinding, flotation, ore hauling, discharging tailings to tailings pile)</li> <li>• Mobile sources (light duty and non-road engines)</li> <li>• Infrastructure maintenance</li> </ul>

			<p>Waste management (waste loading and unloading, incineration, tailings pile management)</p> <ul style="list-style-type: none"> <li>• Fugitive dust</li> </ul> <p>Alternately emissions estimates could be developed if additional information on planned operations is provided.</p>
Mine Site	Effects, Air Quality	Emissions inventory for mine site <u>construction</u> including stationary and mobile equipment	<p>Provide a well-documented emissions inventory that includes tons per year emissions estimates for criteria pollutants, hazardous air pollutants, and greenhouse gases for both permitted and non-permitted emission units during mine site construction. The emission inventory needs to be comprehensive for all mine site construction activities such as but not limited to:</p> <ul style="list-style-type: none"> <li>• Tailpipe emissions from construction equipment</li> <li>• Tailpipe emissions from personnel and material transport</li> <li>• Blasting</li> <li>• Generators</li> <li>• Concrete batch plants</li> <li>• Gravel mining and hauling</li> <li>• Fugitive dust</li> </ul> <p>Alternately emissions estimates could be developed if additional information on planned operations is provided.</p>
Mine Site	Effects, Air Quality	Emissions inventory for mine site <u>decommissioning</u> including stationary and mobile equipment	<p>Provide a well-documented emissions inventory that includes tons per year emissions estimates for criteria pollutants, hazardous air pollutants, and greenhouse gases for both permitted and non-permitted emission units. The emission inventory needs to be comprehensive for all mine site decommissioning activities such as but not limited to:</p> <ul style="list-style-type: none"> <li>• Tailpipe emissions from construction equipment</li> <li>• Tailpipe emissions from personnel and material transport</li> <li>• Generators</li> </ul>

			<p>Fugitive dust</p> <p>Alternately emissions estimates could be developed if additional information on planned operations is provided.</p>
Pipeline	Effects, Air Quality	Emissions inventory for pipeline <u>operations</u> including stationary and mobile equipment	<p>Provide a well-documented emissions inventory that includes tons per year emissions estimates for criteria pollutants, hazardous air pollutants, and greenhouse gases for both permitted and non-permitted emission units during pipeline operations. The emission inventory needs to be comprehensive for all pipeline operation activities such as but not limited to:</p> <ul style="list-style-type: none"> <li>• Compressor station equipment</li> <li>• Fugitive leaks</li> <li>• Mobile sources related to inspection and maintenance activities</li> </ul> <p>Alternately emissions estimates could be developed if additional information on planned operations is provided.</p>
Pipeline	Effects, Air Quality	Emissions inventory for pipeline <u>construction</u> including stationary and mobile equipment	<p>Provide a well-documented emissions inventory that includes tons per year emissions estimates for criteria pollutants, hazardous air pollutants, and greenhouse gases for both permitted and non-permitted emission units during pipeline construction. The emission inventory needs to be comprehensive for all transportation activities such as but not limited to:</p> <ul style="list-style-type: none"> <li>• Fugitive dust from disturbed areas</li> <li>• Tailpipe emissions from construction equipment</li> <li>• Tailpipe emissions from personnel and material transport</li> <li>• Tailpipe emissions associated with ships laying pipeline under the inlet and port activities associated with pipe and associated facilities import.</li> <li>• Pipeline welding and coating operations.</li> <li>• Asphalt batch plants</li> <li>• Concrete batch plants</li> </ul>

			<ul style="list-style-type: none"> <li>Gravel mining and hauling</li> <li>Fuel handling equipment (tanks, fuel dispensing)</li> <li>Construction camp equipment</li> </ul> <p>Alternately emissions estimates could be developed if additional information on planned operations is provided.</p>
Pipeline	Effects, Air Quality	Emissions inventory for pipeline <u>decommissioning</u> including stationary and mobile equipment	<p>Provide a well-documented emissions inventory that includes tons per year emissions estimates for criteria pollutants, hazardous air pollutants, and greenhouse gases for decommissioning of the pipeline. The emission inventory needs to be comprehensive for all transportation activities such as but not limited to:</p> <ul style="list-style-type: none"> <li>Tailpipe emissions from construction equipment</li> <li>Tailpipe emissions from personnel and material transport</li> <li>Generators</li> <li>Fugitive dust</li> </ul> <p>Alternately emissions estimates could be developed if additional information on planned operations is provided.</p>
Transportation Corridor including the Amakdedori Port	Effects, Air Quality	Emissions inventory for transportation corridor <u>operations</u> including land, air, Amakdedori Port and water transport.	<p>Provide a well-documented emissions inventory that includes tons per year emissions estimates for criteria pollutants, hazardous air pollutants, and greenhouse gases for all significant transportation activities. The emission inventory needs to be comprehensive for all transportation activities such as but not limited to:</p> <ul style="list-style-type: none"> <li>Fugitive dust from traffic on unpaved roads</li> <li>Tailpipe emissions from light and heavy duty vehicles (buses, light weight vehicles, water trucks, graders, tanker trucks, container trucks, cranes forklifts)</li> <li>Water barging emissions</li> <li>Ferry emissions</li> <li>Port equipment</li> <li>Ore handling and ship loading at the port</li> <li>Fuel handling equipment (tanks, fuel dispensing)</li> </ul>

			<p>Airport equipment</p> <ul style="list-style-type: none"> <li>• Airplane (personnel and cargo) emissions</li> </ul> <p>Alternately emissions estimates could be developed if additional information on planned operations is provided.</p>
Transportation Corridor Amakdedori Port	Effects, Air Quality	Emissions inventory for transportation corridor <u>construction</u> including land, air, Amakdedori Port and water transport.	<p>Provide a well-documented emissions inventory that includes tons per year emissions estimates for criteria pollutants, hazardous air pollutants, and greenhouse gases for all significant transportation activities. The emission inventory needs to be comprehensive for all transportation activities such as but not limited to:</p> <ul style="list-style-type: none"> <li>• Fugitive dust from disturbed areas</li> <li>• Tailpipe emissions from construction equipment</li> <li>• Tailpipe emissions from personnel and material transport</li> <li>• Emissions from dredging and port construction</li> <li>• Asphalt batch plants</li> <li>• Concrete batch plants</li> <li>• Gravel mining and hauling</li> <li>• Fuel handling equipment (tanks, fuel dispensing)</li> <li>• Construction camp equipment</li> </ul> <p>Alternately emissions estimates could be developed if additional information on planned operations is provided.</p>
Transportation Corridor Amakdedori Port	Effects, Air Quality	Emissions inventory for transportation corridor <u>decommissioning</u> including land, air, Amakdedori Port and water transport.	<p>Provide a well-documented emissions inventory that includes tons per year emissions estimates for criteria pollutants, hazardous air pollutants, and greenhouse gases for all significant transportation activities. The emission inventory needs to be comprehensive for all transportation activities such as but not limited to:</p> <ul style="list-style-type: none"> <li>• Tailpipe emissions from construction equipment</li> <li>• Tailpipe emissions from personnel and material transport</li> <li>• Generators</li> <li>• Fugitive dust</li> </ul>

			Alternately emissions estimates could be developed if additional information on planned operations is provided.
Mine Site	Effects, Air Quality	Ambient air quality impact analysis for criteria pollutants	Provide results of a dispersion modeling analysis of mine site impacts on ambient air quality and PSD increments as required by the applicable air quality permit.
Mine Site	Effects, Air Quality	Visibility impacts analysis for criteria pollutants	Provide results of visibility analysis of mine site impacts on Class I areas or sensitive Class II areas as required by the applicable air quality permit in the case of Class I and Federal Land Manager inquires in the case of Class II.
Mine Site	Effects, Air Quality	Health Risk Assessment	For hazardous pollutant emissions emitted in quantities which present a potential risk to sensitive receptors, provide results of a quantitative health risk assessment of the impacts of airborne hazardous pollutant emissions from mine site activities on sensitive receptors. If there are no hazardous pollutants emitted in quantities large enough to present a potential risk to sensitive receptors please provide that justification.
Pipeline	Effects, Air Quality	Ambient air quality impact analysis for criteria pollutants	Provide results of a dispersion modeling analysis of compressor station impacts on ambient air quality as required by the applicable air quality permit.
Pipeline	Effects, Air Quality	Visibility impacts analysis for criteria pollutants	Provide results of visibility analysis of compressor station impacts on Class I areas or sensitive Class II areas as required by the applicable air quality permit in the case of Class I and Federal Land Manager inquires in the case of Class II.
Mine Site	Effects, Air Quality	Applicant committed environmental protection measures	Provide a listing of all applicant committed environmental protection measures that should be considered when assessing impacts from mine site operations. This can be included in the provided emission inventory to justify key calculation inputs such as control factors or emission factors.
Transportation Corridor Amakdedori Port	Effects, Air Quality	Applicant committed environmental protection measures	Provide a listing of all applicant committed environmental protection measures that should be considered when assessing impacts from the

			transportation corridor including the Amakdedori Port. This can be included in the provided emission inventory to justify key calculation inputs such as control factors or emission factors.
Pipeline	Effects, Air Quality	Applicant committed environmental protection measures	Provide a listing of all applicant committed environmental protection measures that should be considered when assessing impacts from mine site operations. This can be included in the provided emission inventory to justify key calculation inputs such as control factors or emission factors.

Data Reviewed

- 1. EBD
- 1. SEBD